

REMARKS

Applicant respectfully requests reconsideration of this application as amended.

Office Action Rejections Summary

Claim 25 has been objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim

Claims 19-21, 23-29, 32-35, and 39-41 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,815,427 of Cloud et al. ("Cloud").

Claims 22, 30-31 and 36-38 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Cloud.

Status of Claims

Claims 19-41 remain pending in the application. Claims 19, 26, 32 and 39 have been amended to more properly existing claim limitations. The amended claims are supported by the specification. No claims have been added. No new matter has been added. No claims have been canceled.

Claim Rejections (ok)

Claim 25 has been objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. In particular, the Office Action states that claims 21 and 25 are the identical claims except they are depended on a different claim.

Applicant respectfully submits that claims 21 and 25 are not identical. For example, claim 25 depends indirectly from claim 20 and includes the limitation of "selection circuitry." Claim 21 does not depend from claim 20 and does not include the limitation of "selection circuitry." Therefore, applicant respectfully requests that the objection be withdrawn.

Claim Rejections

Claims 19-21, 23-29, 32-35, and 39-41 have been rejected under 35 U.S.C. §102(e) as being anticipated by Cloud. Claims 22, 30-31 and 36-38 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Cloud.

Applicant submits that claim 19 is patentable over Cloud. Amended claim 19 recites:

A memory device, comprising memory storage and three different interfaces to operate the memory device in one of three different modes, wherein the memory storage and the three different interfaces reside in a common die.

(emphasis added).

As shown in Figure 1 of Cloud, memory module 12 and an interface module 14 each reside on a different die contained within different packaged modules. The modules are then mounted on an interconnection module platform 16. (Cloud, col. 2, line 45 to col. 3, line 50; Figure 1).

In contrast, amended claim 19 recites that the "memory storage and the three different interfaces reside in a common die." Therefore, applicants respectfully submit that amended claim 19 is patentable over the cited reference.

Given that claims 20-25 depend from claim 19, applicant submits that claims 20-25 are also patentable over the cited reference.

For reasons similar to those given above with respect to claim 19, applicant respectfully submits that claims 26-37 are patentable over Cloud.

Claims 22, 30-31 and 36-37 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Cloud. Applicant respectfully submits that claims 22, 30-31 and 36-37 are dependent claims that include the limitations of their respective independent claim

from which they depend. Therefore, applicant submits for the reasons stated above that such claims are patentable over the cited reference.

Claim 38 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Cloud. The Office Actions states:

Regarding claims 22, 30-31 and 36-38, Cloud et al. teach the limitations in the claims above. Cloud does not teach the memory device is a flash memory and BIOS memory. However, Cloud indicates that the memory device is SDRAM, but it may be another type of memory device (col. 6, lines 3-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the memory device as the BIOSs which store on a flash memory chip that can be upgraded via software. This would have motivated one of ordinary skill in the art to sue flash memory chip in a PC so that the BIOS could be updated in place instead of being replaced.

In response to applicant's argument that cloud does not disclose cloud does not suggest the use of a flash memory, it is noted that Cloud did indicate that another type of memory device can be used (col. 6, lines 3-7). other type of memory device include the flash memory since the flash memory have the advantage of keeping the content of data stored even the power to the memory is off.

(Office Action 12/16/02, pages 5-7).

Applicant respectfully disagrees with the Office Action's assertions. Although, Cloud discloses that memory device 10 may be another type of memory device other than a SDRAM, Cloud does not disclose the use of a flash memory. The Office Action is attempting to improperly read such a disclosure in Cloud. Applicant respectfully submits that it would be impermissible hindsight, based on applicants' own disclosure to combine Cloud with purported skill in the art to arrive at applicants' claimed invention.

Moreover, a rote invocation of the high level of skill in the art is not sufficient to supply a motivation to combine references. The burden is on the Examiner to show why one would be so motivated as to come up with a combination. Here, the burden, respectfully, has not been met because no reason why one would be motivated to combine

the cited references has been provided by the *Examiner other than the advantage provided by the applicant's own disclosure.*

Moreover, there is no motivation to combine the cited references based on the teachings of Cloud. In particular, Cloud teaches away from the use of a memory device such as a flash memory. One of the problems confronting the inventors of Cloud, and advantages of the teachings of Cloud, is cost effectiveness. (Cloud, col. 2, lines 1-16). The types of memory devices that Cloud discloses are inexpensive volatile memory devices that lose their stored data when power to the memory is removed.

In contrast, a flash memory device is a non-volatile memory device that retains the contents of data stored within it even after power to the memory is removed. Such a technological feature tends to make flash memory more expensive than volatile memory devices such as the SDRAM and DRAM devices taught by Cloud. As such, one of skill in the art would not be motivated to look to flash memory devices for solutions to the problems facing the inventors of Cloud due the cost prohibition of flash memory devices in achieving a cost effective solution as required by Cloud. As such, it would not be obvious to combine a flash memory with the teachings of Cloud. Therefore, applicant respectfully submits that claim 38 is patentable over Cloud.

Applicant respectfully submits that amended claim 39 is patentable over Cloud.

Amended claim 39 recites:

A method, comprising:
selecting an interface from among at least a programming interface and a test interface in a memory device having memory storage, wherein the programming interface, the test interface reside and the memory storage reside in a common die;
and

operating the memory device with the selected interface

(emphasis added)

As shown in Figure 1 of Cloud, memory module 12 and an interface module 14 each reside on a different die contained within different packaged modules. The modules are then mounted on an interconnection module platform 16. (Cloud, col. 2, line 45 to col. 3, line 50; Figure 1). The memory module 12 contains the array of conventional memory cells. (Cloud, col. 2, lines 44-47). Element 77 is a BIST circuit for testing the circuitry on interface module 14 and not on memory module 12. As such, the memory storage cells and the BIST circuitry reside on different die.

In contrast, amended claim 39 recites "wherein the programming interface, the test interface reside and the memory storage reside in a common die." Nothing in Cloud discloses a programming interface, a test interface and memory storage residing in a common die. Therefore, applicant respectfully submits that claim 39 is patentable over Cloud.

Given that claims 40-41 depend from claim 39, applicant submits that claims 40-41 are also patentable over Cloud.

In conclusion, applicant respectfully submits that in view of the arguments and amendments set forth herein, the applicable rejections have been overcome.

If there are any additional charges, please charge our Deposit Account No. 02-2666.

Respectfully submitted,

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